

REMARKS

Claims 1-10 have been canceled and new claims 11-20 have been added. Claim 11-20 are currently pending in the application.

The new claims are directed to a method for excluding undesired components of an assay from an electrophoretic separation in which released eTag reporters are detected and/or identified. Basis for this aspect of the invention is found generally on page 24, line 5, to page 25, line 36; Figs. 3A-3C; and Figs. 26 and 27, of the specification, and is more particularly set forth in the Table of Support below.

Two amendments to the specification have been made: (i) a paragraph from parent application 09/698,846 has been expressly incorporated to support claim language as noted below, and (ii) a Sequence Listing section has been added.

Bases for the new claims are as follows:

Table of Support

Claim(s)	Term/Phrase	Basis
11	“A method of excluding uncleaved electrophoretic probes from an electrophoretic separation”	Page 4, lines 29-34 and Claim 10 (concept of capture ligand specifically binding to capture agent to prevent uncleaved electrophoretic probes from being separated with released eTag reporters). Page 24, 6-12 (describes the function of a capture ligand). Page 7, lines 1-5, Figure captions for Figs. 26 and 27. Figures 26 and 27 showing data wherein undigested probes are excluded from electropherogram using avidin as capture agent. Figure 3B showing diagrammatically the exclusion of undigested probe using capture agent.
11-19	“electrophoretic probe”	Page 7, line 43, to page 8, line 4.
11-19	“eTag reporter”	Page 8, lines 9-17. Page 11, lines 31-42.
11	“capture ligand” attached to an electrophoretic probe.	Page 4, lines 29-34. Page 24, line 5, to page 25, line 36.
11	“... eTag reporters from different electrophoretic probes form distinct peaks upon electrophoretic separation”	Page 4, lines 35-38. Page 5, lines 40-42 (figure caption for Fig. 8). Figure 8.
11	“a nuclease” used to cleave eTag reporters from electrophoretic probes.	Page 4, lines 21-25 (describes concept of (D,M)-N being release from electrophoretic probe). Page 31, lines 3-7 (states that the methodology of the invention may be implemented with the nucleases used in polymerase chain reaction and Invader technologies). Page 33, Table 3 (rightmost column entitle “e-tag Release” at top lists four (4) exemplary nucleases for releasing eTag reporters)

Table of Support (cont'd)

Claim(s)	Term/Phrase	Basis
11	"complexes" formed when primers and electrophoretic probes combined under hybridization conditions.	Page 13, line 45, to page 14, line 3 (discusses the release of mobility-identifying regions after modification—e.g. by nuclease digestion—of target-binding region of electrophoretic probe).
11	"recognizing" complex by nuclease and digestion of electrophoretic probe.	Page 13, lines 3-14 (discusses how "reagent system"—which in present embodiment comprises a nuclease—recognizes the binding event between a target-binding region and a target—line 5)
11	"adding to the mixture a capture agent that specifically binds the capture ligands of the electrophoretic probes and confers on the undigested electrophoretic probes a charge that causes the undigested electrophoretic probes to migrate upon electrophoretic separation in a direction opposite of that of the eTag reporters"	Page 24, lines 8-12 (an "oppositely charged receptor" as a capture agent is disclosed that migrates in opposite direction of eTag reporter when complexed with undigested probe). Page 24, line 39, to page 25, line 2 (Positively charged avidin is disclosed as an example of an "oppositely charged receptor" that permits ready separation of uncleaved probe—line 1, page 25).
12	"eTag reporter has a molecular weight of from 150 to 10,000 daltons"	Page 14, line 34.
13	"... eTag reporters ... having a negative charge ... and said capture agent confers on said undigested electrophoretic probes a positive charge"	Page 24, line 42, to page 25, line 1.
14, 15, 16		Claims are identical to allowed claims 16, 17, and 18, respectively, of parent application USSN 09/825,247.
17	Capture agent is "avidin".	Page 24, lines 42-45.
18	"capture ligand is an antigen and said capture agent is an antibody ... "	Allowed claim 20 and original claim 7 of parent application USSN 09/825,247.
19		Claim 19 is identical to allowed claim 23 of parent application USSN 09/825,247.
20	"D is a fluorescent label," "capture ligand is biotin ... capture agent is avidin," "molecular weight of between 35 and 1500 daltons" in reference to M, and "range of from 5 to 100 polynucleotides."	Allowed claim 24 of parent application USSN 09/825,247; and Page 9, lines 27-31, of parent application USSN 09/698,846* (for MW limitation).

* Parent application 09/698,846 was incorporated by reference (see page 1, lines 5-8, of the specification), and the indicated passage has been expressly incorporated by the above amendment to the specification.

No new matter has been added by the amendments.

In view of the above, Applicants submit that the claims as written fully satisfy the requirements of Title 35 of the U.S. Code, and respectfully request that the claims be allowed and the application quickly passed to issue.

If any additional time extensions are required, such time extensions are hereby requested. If any additional fees not submitted with this response are required, please take such fees from deposit account **50-2266**.

Respectfully submitted,



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Enclosures: Declaration of Sequence Listing with 3.5 inch diskette containing CRF of Sequence Listing